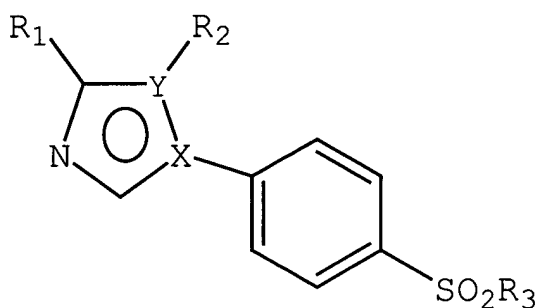


Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A compound of formula I:



I

wherein:

one of X or Y represents N and the other represents C;

R<sub>1</sub> represents hydrogen, methyl, halogen, cyano, nitro, -CHO, -COCH<sub>3</sub> or -COOR<sub>4</sub>;

R<sub>2</sub> represents aryl ~~or heteroaryl~~ unsubstituted or substituted with one or more groups independently selected from halogen, C<sub>1-8</sub> alkyl, C<sub>1-8</sub> haloalkyl, R<sub>4</sub>OC<sub>0-8</sub> alkyl, R<sub>4</sub>SC<sub>0-8</sub> alkyl, cyano, nitro, -NR<sub>4</sub>R<sub>6</sub>, -NR<sub>4</sub>SO<sub>2</sub>R<sub>5</sub>, -SOR<sub>5</sub>, -SO<sub>2</sub>R<sub>5</sub>, -SO<sub>2</sub>NR<sub>4</sub>R<sub>6</sub>, or -CONR<sub>4</sub>R<sub>6</sub>;

R<sub>3</sub> represents C<sub>1-8</sub> alkyl, C<sub>1-8</sub> haloalkyl or -NR<sub>4</sub>R<sub>6</sub>;

R<sub>4</sub> represents hydrogen, C<sub>1-8</sub> alkyl, or arylC<sub>0-8</sub> alkyl (where the aryl group can be unsubstituted or substituted with one or more groups selected from C<sub>1-8</sub> alkyl, halogen, C<sub>1-8</sub> haloalkyl, cyano, nitro, R<sub>7</sub>OC<sub>0-8</sub> alkyl, R<sub>7</sub>SC<sub>0-8</sub> alkyl, -NR<sub>7</sub>R<sub>8</sub>, -NR<sub>7</sub>COR<sub>5</sub>, -COR<sub>7</sub> or -COOR<sub>7</sub>);

R<sub>5</sub> represents C<sub>1-8</sub> alkyl or C<sub>1-8</sub> haloalkyl;

R<sub>6</sub> represents hydrogen, C<sub>1-8</sub> alkyl, arylC<sub>1-8</sub> alkyl (where the aryl group can be unsubstituted or substituted with one or more groups selected from C<sub>1-8</sub> alkyl, halogen, C<sub>1-8</sub> haloalkyl, cyano, nitro, R<sub>7</sub>OC<sub>0-8</sub> alkyl, R<sub>7</sub>SC<sub>0-8</sub> alkyl, -NR<sub>7</sub>R<sub>8</sub>, -NR<sub>7</sub>COR<sub>5</sub>, -COR<sub>7</sub> or -COOR<sub>7</sub>), -COR<sub>8</sub> or -COOR<sub>8</sub>;

R<sub>7</sub> represents hydrogen, C<sub>1-8</sub> alkyl or benzyl;

R<sub>8</sub> represents C<sub>1-8</sub> alkyl or C<sub>1-8</sub> haloalkyl;

aryl in the above definitions represents phenyl or naphthyl; ~~and heteroaryl in the above definitions represents pyridine, pyrazine, pyrimidine or pyridazine, which can be optionally fused to a benzene ring,~~

or a salt, solvate or prodrug thereof.

2. (Original) A compound according to claim 1 wherein R<sub>1</sub> represents halogen.

3. (Original) A compound according to claim 2 wherein R<sub>1</sub> represents chloro.

4. (Currently Amended) A compound according to claim 1 wherein R<sub>2</sub> represents phenyl ~~or pyridine~~ unsubstituted or

substituted with one or more groups independently selected from halogen, C<sub>1-8</sub> alkyl, C<sub>1-8</sub> haloalkyl, R<sub>4</sub>OC<sub>0-8</sub> alkyl, R<sub>4</sub>SC<sub>0-8</sub> alkyl, cyano, nitro, -NR<sub>4</sub>R<sub>6</sub>, -NR<sub>4</sub>SO<sub>2</sub>R<sub>5</sub>, -SOR<sub>5</sub>, -SO<sub>2</sub>R<sub>5</sub>, -SO<sub>2</sub>NR<sub>4</sub>R<sub>6</sub>, or -CONR<sub>4</sub>R<sub>6</sub>.

5. (Original) A compound according to claim 1 wherein R<sub>3</sub> represents methyl or -NH<sub>2</sub>.

6. (Original) A compound according to claim 1 wherein X represents N.

7. (Original) A compound according to claim 5 wherein R<sub>1</sub> represents halogen.

8. (Original) A compound according to claim 5 wherein R<sub>1</sub> represents chloro.

9. (Original) A compound according to claim 7 or 8 wherein X represents N.

10. (Currently Amended) A compound according to claim 9 wherein R<sub>2</sub> represents phenyl ~~or pyridine~~ unsubstituted or substituted with one or more groups independently selected from halogen, C<sub>1-8</sub> alkyl, C<sub>1-8</sub> haloalkyl, R<sub>4</sub>OC<sub>0-8</sub> alkyl, R<sub>4</sub>SC<sub>0-8</sub> alkyl, cyano, nitro, -NR<sub>4</sub>R<sub>6</sub>, -NR<sub>4</sub>SO<sub>2</sub>R<sub>5</sub>, -SOR<sub>5</sub>, -SO<sub>2</sub>R<sub>5</sub>, -SO<sub>2</sub>NR<sub>4</sub>R<sub>6</sub>, or -CONR<sub>4</sub>R<sub>6</sub>.

11. (Currently Amended) A compound according to claim 1 selected from:

5-(4-fluorophenyl)-1-(4-methylsulfonylphenyl)imidazole;

5-(4-methylphenyl)-1-(4-methylsulfonylphenyl)imidazole;

5-(2,4-difluorophenyl)-1-(4-methylsulfonylphenyl)imidazole;  
1-(4-methylsulfonylphenyl)-5-phenylimidazole;  
5-(3,4-dichlorophenyl)-1-(4-methylsulfonylphenyl)imidazole;  
5-(4-methoxyphenyl)-1-(4-methylsulfonylphenyl)imidazole;  
5-(3-fluoro-4-methoxyphenyl)-1-(4-methylsulfonylphenyl)imidazole;  
5-(3-fluorophenyl)-1-(4-methylsulfonylphenyl)imidazole;  
5-(3-fluoro-4-methylphenyl)-1-(4-methylsulfonylphenyl)imidazole;  
5-(2-fluorophenyl)-1-(4-methylsulfonylphenyl)imidazole;  
1-(4-methylsulfonylphenyl)-5-(4-trifluoromethoxyphenyl)imidazole;  
~~5-(6-methyl-3-pyridyl)-1-(4-methylsulfonylphenyl)imidazole;~~  
5-(2-fluoro-4-methoxyphenyl)-1-(4-methylsulfonylphenyl)imidazole;  
5-(3-chloro-4-methylphenyl)-1-(4-methylsulfonylphenyl)imidazole;  
5-(3-methoxy-4-methylphenyl)-1-(4-methylsulfonylphenyl)imidazole;  
5-(4-chlorophenyl)-1-(4-methylsulfonylphenyl)imidazole;  
~~5-(6-chloro-3-pyridyl)-1-(4-methylsulfonylphenyl)imidazole;~~  
~~5-(2,6-dichloro-3-pyridyl)-1-(4-methylsulfonylphenyl)imidazole;~~  
~~5-(2-chloro-6-methoxy-3-pyridyl)-1-(4-~~  
~~methylsulfonylphenyl)imidazole;~~  
~~5-(5,6-dichloro-3-pyridyl)-1-(4-methylsulfonylphenyl)imidazole;~~  
1-(4-methylsulfonylphenyl)-5-(4-propoxyphenyl)imidazole;  
5-(3,5-diethoxyphenyl)-1-(4-methylsulfonylphenyl)imidazole;  
5-(4-ethoxyphenyl)-1-(4-methylsulfonylphenyl)imidazole;  
1-(4-methylsulfonylphenyl)-5-(4-nitrophenyl)imidazole;  
5-(4-methylsulfonylphenyl)-1-(4-methylsulfonylphenyl)imidazole;

5-(4-ethylsulfanylphenyl)-1-(4-methylsulfonylphenyl)imidazole;  
5-(4-dimethylaminophenyl)-1-(4-methylsulfonylphenyl)imidazole;  
1-(4-fluorophenyl)-5-(4-methylsulfonylphenyl)imidazole;  
5-(4-fluorophenyl)-4-methyl-1-(4-methylsulfonylphenyl)imidazole;  
4-chloro-5-(4-fluorophenyl)-1-(4-methylsulfonylphenyl)imidazole;  
4-chloro-5-(4-methylphenyl)-1-(4-methylsulfonylphenyl)imidazole;  
4-chloro-5-(2,4-difluorophenyl)-1-(4-methylsulfonylphenyl)imidazole;  
4-chloro-1-(4-methylsulfonylphenyl)-5-phenylimidazole;  
4-chloro-5-(3,4-dichlorophenyl)-1-(4-methylsulfonylphenyl)imidazole;  
4-chloro-5-(4-methoxyphenyl)-1-(4-methylsulfonylphenyl)imidazole;  
4-chloro-5-(3-fluoro-4-methoxyphenyl)-1-(4-methylsulfonylphenyl)imidazole;  
4-chloro-5-(3-fluorophenyl)-1-(4-methylsulfonylphenyl)imidazole;  
4-chloro-5-(3-fluoro-4-methylphenyl)-1-(4-methylsulfonylphenyl)imidazole;  
4-chloro-5-(2-fluorophenyl)-1-(4-methylsulfonylphenyl)imidazole;  
4-chloro-1-(4-methylsulfonylphenyl)-5-(4-trifluoromethoxyphenyl)imidazole;  
~~4-chloro-5-(6-methyl-3-pyridyl)-1-(4-methylsulfonylphenyl)imidazole;~~  
4-chloro-5-(2-fluoro-4-methoxyphenyl)-1-(4-methylsulfonylphenyl)imidazole;

4-chloro-5-(3-chloro-4-methylphenyl)-1-(4-methylsulfonylphenyl)imidazole;

4-chloro-5-(3-methoxy-4-methylphenyl)-1-(4-methylsulfonylphenyl)imidazole;

4-chloro-5-(4-chlorophenyl)-1-(4-methylsulfonylphenyl)imidazole;

~~4-chloro-5-(6-chloro-3-pyridyl)-1-(4-methylsulfonylphenyl)imidazole;~~

~~4-chloro-5-(2,6-dichloro-3-pyridyl)-1-(4-methylsulfonylphenyl)imidazole;~~

~~4-chloro-5-(2-chloro-6-methoxy-3-pyridyl)-1-(4-methylsulfonylphenyl)imidazole;~~

~~4-chloro-5-(5,6-dichloro-3-pyridyl)-1-(4-methylsulfonylphenyl)imidazole;~~

4-chloro-1-(4-methylsulfonylphenyl)-5-(4-propoxyphenyl)imidazole;

4-chloro-5-(3,5-diethoxyphenyl)-1-(4-methylsulfonylphenyl)imidazole;

4-chloro-5-(4-ethoxyphenyl)-1-(4-methylsulfonylphenyl)imidazole;

4-chloro-1-(4-methylsulfonylphenyl)-5-(4-nitrophenyl)imidazole;

4-chloro-5-(4-methylsulfonylphenyl)-1-(4-methylsulfonylphenyl)imidazole;

4-chloro-5-(4-ethylsulfonylphenyl)-1-(4-methylsulfonylphenyl)imidazole;

~~4-chloro-5-(6-ethoxy-3-pyridyl)-1-(4-methylsulfonylphenyl)imidazole;~~

4-bromo-5-(4-fluorophenyl)-1-(4-methylsulfonylphenyl)imidazole;  
1-(4-fluorophenyl)-2-methyl-5-(4-methylsulfonylphenyl)imidazole;  
2-chloro-1-(4-fluorophenyl)-5-(4-methylsulfonylphenyl)imidazole;  
1-(4-fluorophenyl)-5-(4-methylsulfonylphenyl)imidazol-2-  
carboxaldehyde;  
methyl 1-(4-fluorophenyl)-5-(4-methylsulfonylphenyl)imidazol-2-  
carboxylate;  
2-bromo-1-(4-fluorophenyl)-5-(4-methylsulfonylphenyl)imidazole;  
1-(4-fluorophenyl)-5-(4-methylsulfonylphenyl)imidazol-2-  
carbonitrile;  
2-chloro-5-(4-methylsulfonylphenyl)-1-phenylimidazole;  
2-chloro-1-(4-methylphenyl)-5-(4-methylsulfonylphenyl)imidazole;  
4-[4-chloro-5-(4-fluorophenyl)imidazol-1-yl]benzenesulfonamide;  
4-(4-chloro-5-phenylimidazol-1-yl)benzenesulfonamide;  
4-[4-chloro-5-(3,4-dichlorophenyl)imidazol-1-  
yl]benzenesulfonamide;  
4-[4-chloro-5-(4-methylphenyl)imidazol-1-yl]benzenesulfonamide;  
4-[4-chloro-5-(4-ethoxyphenyl)imidazol-1-yl]benzenesulfonamide;  
4-[4-chloro-5-(3-fluoro-4-methoxyphenyl)imidazol-1-  
yl]benzenesulfonamide;  
~~4-[4-chloro-5-(6-chloro-3-pyridyl)imidazol-1-  
yl]benzenesulfonamide;~~  
4-[5-(4-fluorophenyl)imidazol-1-yl]benzenesulfonamide;  
5-(4-aminophenyl)-4-chloro-1-(4-methylsulfonylphenyl)imidazole;

~~5-(6-ethoxy-3-pyridyl)-1-(4-methylsulfonylphenyl)imidazole;~~

4-chloro-5-(4-dimethylaminophenyl)-1-(4-methylsulfonylphenyl)imidazole;

5-(3-chloro-4-dimethylaminophenyl)-1-(4-methylsulfonylphenyl)imidazole;

4-chloro-5-(3-chloro-4-dimethylaminophenyl)-1-(4-methylsulfonylphenyl)imidazole;

5-(4-acetylaminophenyl)-4-chloro-1-(4-methylsulfonylphenyl)imidazole;

5-(4-ethylsulfinylphenyl)-1-(4-methylsulfonylphenyl)imidazole;

5-(4-ethylsulfonylphenyl)-1-(4-methylsulfonylphenyl)imidazole;

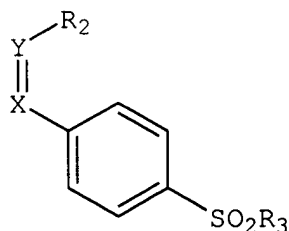
a salt thereof;

a solvate thereof; and

a prodrug thereof.

12. (Previously presented) A process for preparing a compound of formula I according to claim 1 which comprises:

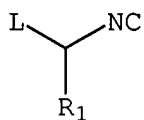
(a) when in a compound of formula I  $R_1$  represents hydrogen or methyl, reacting an imine of formula II



II



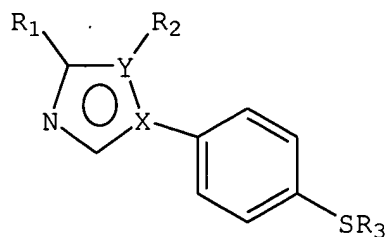
wherein X, Y, R<sub>2</sub> and R<sub>3</sub> are as defined in claim 1, with an isocyanide of formula III



III

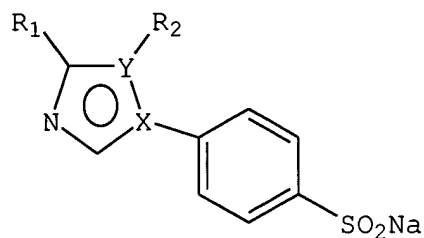
wherein R<sub>1</sub> represents hydrogen or methyl and L represents a leaving group; or

(b) when in a compound of formula I R<sub>3</sub> represents C<sub>1-8</sub> alkyl or C<sub>1-8</sub> haloalkyl, oxidizing a thioether of formula VIII,



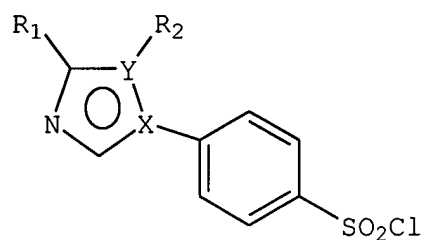
VIII

wherein  $R_3$  represents  $C_{1-8}$  alkyl or  $C_{1-8}$  haloalkyl and  $X$ ,  $Y$ ,  $R_1$  and  $R_2$  are as defined in claim 1, with an oxidizing agent; or  
(c) when in a compound of formula I  $R_3$  represents  $-NH_2$ , reacting a compound of formula IX



IX

wherein  $X$ ,  $Y$ ,  $R_1$  and  $R_2$  are as defined in claim 1, with hydroxylamine-*O*-sulfonic acid; or  
(d) when in a compound of formula I  $R_3$  represents  $-NR_4R_6$ , reacting a compound of formula XI



XI

wherein X, Y, R<sub>1</sub> and R<sub>2</sub> are as defined in claim 1, with an amine of formula HNR<sub>4</sub>R<sub>6</sub>; or

(e) when in a compound of formula I R<sub>1</sub> represents halogen and X represents N, reacting a compound of formula I wherein R<sub>1</sub> represents hydrogen with a halogenating agent; or

(f) when in a compound of formula I R<sub>1</sub> represents halogen and Y represents N, reacting a compound of formula I wherein R<sub>1</sub> represents hydrogen with a strong base and a halogenating agent; or

(g) converting a compound of formula I into another compound of formula I.

13. (Original) A pharmaceutical composition which comprises an effective amount of a compound of formula I according to claim 1 or a pharmaceutically acceptable salt, solvate or prodrug

thereof in admixture with one or more pharmaceutically acceptable excipients.

14-27. (Cancelled)

28. (Original) A method of treating inflammation, pain or fever in a mammal in need thereof, which comprises administering to said mammal a therapeutically effective amount of a compound of formula I according to claim 1 or a pharmaceutically acceptable salt, solvate or prodrug thereof.

29. (Original) A method in accordance with claim 28, wherein said mammal is a human.

30. (Previously presented) A method for treating prostanoid-induced smooth muscle contraction in a mammal in need thereof, which comprises administering to said mammal a therapeutically effective amount of a compound of formula I according to claim 1 or a pharmaceutically acceptable salt, solvate or prodrug thereof.

31. (Original) A method in accordance with claim 30, wherein said mammal is a human.

32. (Previously presented) A method of treating dysmenorrhea, preterm labor, asthma or bronchitis in a mammal in need thereof, which comprises administering to said mammal a therapeutically effective amount of a compound of formula I according to claim 1 or a pharmaceutically acceptable salt, solvate or prodrug thereof.

33. (Original) A method in accordance with claim 32, wherein said mammal is a human.

34. (Currently amended) A method of treating liver, bladder, pancreas, ovary, prostate, cervix, lung, breast, skin or gastrointestinal ~~and colon~~ cancer in a mammal in need thereof, which comprises administering to said mammal a therapeutically effective amount of a compound of formula I according to claim 1 or a pharmaceutically acceptable salt, solvate or prodrug thereof.

35. (Previously Presented) A method in accordance with claim 34, wherein said mammal is a human.

36. (Original) A method according to claim 34 or 35, wherein said cancer is a gastrointestinal cancer.

37. (Original) A method according to claim 36, wherein said cancer is colon cancer.

38. (Currently amended) A method of treating cerebral ~~infarction,~~ infarction or epilepsy in a mammal in need thereof, which comprises administering to said mammal a therapeutically effective amount of a compound of formula I according to claim 1 or a pharmaceutically acceptable salt, solvate or prodrug thereof.

39. (Original) A method according to claim 38, wherein said mammal is a human.

40. (Currently amended) A method of treating Alzheimer's disease or dementia in a mammal in need thereof, which comprises administering to said mammal a therapeutically effective amount of a compound of formula I, according to claim 1, or a pharmaceutically acceptable salt, solvate or prodrug thereof ~~is Alzheimer's disease or dementia.~~